

**Draft Environmental Review
Proposed Categorical Exclusion**

For

**The Proposed OROSZ THREE DEPARTURE (RNAV) and SLAPP TWO DEPARTURE
(RNAV) Open Standard Instrument Departure Procedures at Hollywood Burbank Airport
October 2018**

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Section 1: Background and Proposed Project Description

The Federal Aviation Administration (FAA) is proposing to implement two “Open” Standard Instrument Departure (SID) procedures at Hollywood Burbank Airport (Burbank), formerly known as Bob Hope Airport, in Burbank, California.

During the design phase of the SoCal Metroplex Project airspace procedures in 2012, the Metroplex design team had considered an Open SID at several airports, including Burbank. This type of departure would start as a satellite-based route but then have an “open” segment, where air traffic controllers would vector aircraft, before connecting with another satellite-based segment that would take aircraft up to higher altitudes. This “open departure” provides the precision and predictability benefits of satellite-based routes but also gives controllers the flexibility to direct aircraft as necessary in highly congested portions of the airspace around Burbank. However, when the procedures for the Southern California Metroplex project were being designed, the FAA had not yet established the safety criteria for open departures. As a result, we were unable to implement open departures for Burbank at that time. We tabled the open departures with the understanding that we would reexamine them when and if the FAA adopted new criteria allowing for these kind of routes.

In March 2016, the FAA Order 8260.58A, *United States Standard for Performance Based Navigation*, (PBN), changed to include flight procedure criteria for the Open SID concept based on recommendations from the FAA Performance Based Operations Aviation Rulemaking Committee.¹ The current OROSZ TWO Area Navigation (RNAV) SID (OROSZ TWO) and the SLAPP ONE RNAV SID (SLAPP ONE) procedures would be revised due to this change in criteria allowing embedded radar vector segments to be included in the departure procedure.

Because of the new criteria available, FAA proposed two Open SID procedures at Burbank to be named the *OROSZ THREE DEPARTURE (RNAV)* (OROSZ THREE) and the *SLAPP TWO DEPARTURE (RNAV)* (SLAPP TWO) as a way to address an air traffic operational need that had been requested by FAA Air Traffic Control (ATC) responsible for managing the complex terminal airspace in the local area. Additionally, implementation of the proposed procedures would fulfill the terms of a Settlement Agreement Between the Federal Aviation Administration, Benedict Hills Estates Association and Benedict Hills Homeowners Association (Settlement Agreement).² Thus,

¹ The Performance Based Operations Aviation Rulemaking Committee provides a forum for the United States (U.S.) aviation community to discuss, prioritize, and resolve issues, provide direction for U.S. flight operations criteria, support the NextGen implementation plan and produce U.S. consensus positions for global harmonization.

² On October 24, 2016, the Benedict Hills Estates Association and the Benedict Hills Homeowners Association (Petitioners) filed a petition for review challenging the FAA’s *Finding Of No Significant Impact and Record Of Decision* for the Southern California Metroplex Project under 49 U.S.C. § 46110 in the United States Court of Appeals for the District of Columbia Circuit, Case No. 16-1366. The parties engaged in mediation to informally resolve their dispute and reached a settlement in March 2016. The court dismissed Petitioners from the case on March 29, 2018.

the proposed procedures address concerns regarding overflights while allowing the FAA to implement procedures that it had already contemplated were safe and improve efficiency of Burbank departures.

Under the proposed procedures, aircraft utilizing the proposed Open SID procedures would require radar vectors³ turning to the north as soon as practicable after departing Burbank. The proposed Open SID procedures are the Proposed Action for this draft environmental review, and the details of the Proposed Action are discussed below.

This draft environmental review will provide basic information about the Proposed Action to better assist in preparing for the environmental analysis phase and inform the FAA's compliance with the National Environmental Policy Act of 1969 (NEPA) (42 United States Code [U.S.C.] Section 4321 et seq.; implementing regulations issued by the Council on Environmental Quality (CEQ) (40 Code of Federal Regulations (CFR), parts 1500-1508); FAA Order 1050.1F, *Environmental Impacts: Policies and Procedures* (FAA Order 1050.1F); and FAA Order 7400.2L, *Procedures for Handling Airspace Matters*. FAA Order 7400.2L, *Procedures for Handling Airspace Matters*, provides guidance and establishes policy and procedures to assist air traffic personnel in applying the requirements of FAA Order 1050.1F. In addition, this draft environmental review and the associated public involvement has been guided the principles in the FAA's February 2016 *Community Involvement Manual*.

Once the FAA determines that NEPA applies to a proposed action, the FAA needs to decide on the appropriate level of review. The three levels of NEPA review are Categorical Exclusion (CATEX), Environmental Assessment (EA), and Environmental Impact Statement (EIS).⁴ A CATEX refers to a category of actions that the FAA has determined, based on previous experience, do not individually or cumulatively have a significant effect on the human environment except in extraordinary circumstances. The presence of extraordinary circumstances preclude the use of a CATEX and would merit additional review in an EA or an EIS. A CATEX is not an exemption or a waiver from NEPA; it is a level of NEPA review and compliance. FAA Order 1050.1F, Section 5-6.5, *Categorical Exclusions for Procedural Actions* includes the list of CATEXs involving establishment, modification, or application of airspace and air traffic procedures.

3 Radar Vectors: Directional headings issued to aircraft to provide navigational guidance and to maintain separation between aircraft and/or obstacles.

⁴ An Environmental Assessment (EA) is prepared to determine whether or not the action has the potential to cause significant environmental effects. An Environmental Impact Statement (EIS) is prepared when one or more environmental impacts of a proposed action would be significant and mitigation measures would not reduce the impact(s) below significant levels. FAA Order 1050.1F

The FAA has determined that the Proposed Action would fall under one of the listed categorically excluded actions in FAA Order 1050.1F, specifically, Section 5-6.5.i: “. . . *modifications to currently approved procedures conducted below 3,000 feet above ground level (AGL) that do not significantly increase noise over noise sensitive areas.*”

Specifically, the Proposed Action would only alter the beginning of the departure procedures, requiring planes to return to the RNAV procedures after the first legs of their departure. Based on noise screening analysis (described in more detail below), the FAA has determined that the proposed action amending currently approved procedures conducted below 3,000 feet AGL would not significantly increase noise over noise sensitive areas, and thus would be covered by this CATEX. However, before finalizing a decision to categorically exclude the proposed action, the FAA must consider the potential for extraordinary circumstances, pursuant to FAA Order 1050.1F, Paragraph 5-2.

Extraordinary circumstances are factors or circumstances in which a normally categorically excluded action may have a significant environmental impact that then requires further analysis in an EA or an EIS. For FAA proposed actions, extraordinary circumstances exist when the proposed action involves any of the circumstances described in Order 1050.1F, Paragraph 5-2(b) and has the potential for a significant impact. For the Proposed Action, the FAA is considering the following factors, which, if they result in a significant impact, would preclude use of a CATEX to satisfy NEPA requirements:

- An adverse effect on cultural resources protected under the National Historic Preservation Act of 1966, as amended, 54 U.S.C. §300101 et seq.
- An impact on properties protected under Section 4(f) of the Department of Transportation Act.
- An impact on natural, ecological, or scenic resources of Federal, state, tribal, or local significance.
- An impact on noise levels of noise sensitive areas.⁵
- An impact on air quality.

⁵ An area is noise sensitive if aircraft noise may interfere with the normal activities associated with the use of the land. Normally, noise sensitive areas include residential, educational, health, and religious structures and sites, and parks, recreational areas, areas with wilderness characteristics, wildlife refuges, and cultural and historical sites.
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- Impacts on the quality of the human environment that are likely to be highly controversial on environmental grounds.⁶
- Likelihood to directly, indirectly, or cumulatively create a significant impact on the human environment.

This document describes how the CATEX applies to the Proposed Action, and analyzes extraordinary circumstances that could require more detailed NEPA review. The amount and type of documentation for a CATEX determination should be tailored to the type of action involved and the potential for extraordinary circumstances.⁷ There is not a prescribed format for an environmental review of a CATEX. However, the documentation should “cite the CATEX(s) used, describe how the proposed action fits within the category of actions described in the CATEX, and explain that there are no extraordinary circumstances that would preclude the proposed action from being categorically excluded.”⁸

Section 2: Purpose and Need

The complex air traffic flows and air traffic volume for the Los Angeles International Airport (Los Angeles), Santa Monica Municipal Airport, and Van Nuys Airport require ATC operational interaction in order to efficiently separate arrival and departure flight paths in the Burbank airspace between the terminal airspace structure and the en route airspace structure. The flight paths to and from Los Angeles, Santa Monica Municipal Airport, and Van Nuys Airport all interact with the Burbank airspace, creating the need to direct aircraft through certain congested areas on a more dynamic basis and then allowing the aircraft to proceed on a consistent course and re-join the RNAV SID as efficiently as possible.⁹

The FAA considered a procedure type that would allow departing aircraft to better travel along a departure path in order to turn sooner toward the en route airway structure, while ensuring that aircraft operations remain safe and efficient. An Open SID is a type of RNAV PBN departure starting and ending with a defined path but containing a variable ATC assigned vector leg within the procedure. The essence of these procedures is that they would require a pilot to resume the automated flight path once ATC vectoring is complete.

⁶ The term “highly controversial on environmental grounds” means there is a substantial dispute involving reasonable disagreement over the degree, extent, or nature of a proposed action’s environmental impacts or over the action’s risks of causing environmental harm. FAA Order 1050.1F, Section 5-2.b.(10).

⁷ FAA Order 1050.1F, Section 5-3.d.

⁸ FAA Order 1050.1F, Section 5-3.d.

⁹ FAA Order 8260.58A

As previously stated, at the time the OROSZ TWO and SLAPP ONE procedures were developed, criteria did not allow for the creation of an Open SID utilizing performance based navigation technology. This change in flight procedure criteria allows for the development of a more appropriate departure procedure for the Burbank airspace area that supports efficient management of air traffic.

The proposed Open SID procedure westbound turn directs aircraft away from the arrival operations into Los Angeles, and provides initial separation from the parallel arrival flight path into Burbank. Exit points from the terminal area airspace to the en route airway structure would be north of Burbank providing for aircraft to turn sooner toward the direction of their filed flight plan route, while gaining altitude in order to integrate with other area departure procedures and flows.

Section 2.1: Open SID Development Process

In developing the Open SID procedures near Burbank Airport, the FAA was responsible for following regulatory and technical guidance as well as meeting criteria and standards in three general categories:

1. RNAV Design Criteria and Air Traffic Control Regulatory Requirements - Flight procedure design is subject to requirements found in several FAA Orders and guidance documents, including FAA Order 8260.3C,¹⁰ *United States Standard for Terminal Instrument Procedures*, FAA Order 8260.58B, *United States Standard for Performance Based Navigation Instrument Procedure Design*, FAA Order 8260.43B, *Flight Procedures Management Program*, FAA Order JO 7110.65X, *Air Traffic Control*, FAA Order JO 7100.41A, *Performance Based Navigation Implementation Process* and *The Guidelines and Updates for Implementing Terminal RNAV Procedures*. In addition, FAA Order JO 7110.65X *Air Traffic Control* includes requirements governing air traffic control procedures, air traffic management, and appropriate technical terminology.
2. Operational Criteria - To the maximum extent possible, PBN procedures are developed operationally to ensure aircraft departure and arrival lateral and vertical paths are procedurally separated. Air traffic controllers are responsible for aircraft separation; however, they use PBN procedures to assist with their operational responsibilities at Burbank and surrounding airports. Operational criteria were consistent with the Purpose and Need for the project.
3. Safety Risk Management Criteria - FAA evaluated air traffic procedures using the Air Traffic Organization's (ATO) Safety Management System (SMS). The SMS is the system for assessing and managing the safety of air traffic control and navigation services in the

¹⁰ These procedures were developed before FAA Order 8260.D was issued on February 16, 2018.

National Airspace System. If a procedure introduced a new hazard or increased the severity and/or likelihood of an existing hazard, the design was adjusted or mitigated to reduce the hazard to acceptable levels. In compliance with SMS requirements, the procedures were evaluated by a Safety Risk Management Panel¹¹ following a five-step process: 1) describe the system; 2) identify the hazards in the system; 3) analyze the risks; 4) assess the risk; and, 5) treat the risk (if any).

Finally, FAA undertook validation exercises that further refined the procedures to ensure they were viable. Specifically, FAA took into account the limitations imposed by terrain, Controlled Airspace¹² and Special Use Airspace.¹³ These factors resulted in restrictions to the design options for the proposed Open SID procedures.

Section 3: Alternatives

Section 3.1: Alternatives Analysis

The FAA considered four alternatives for the Open SID procedure design for Runway 15 at Burbank. They are the Proposed Action, the No Action Alternative and two additional alternatives. This alternatives analysis is consistent with CEQ regulations and FAA guidance provided in FAA Order 1050.1F.

Section 3.2: No Action Alternative

The No Action alternative comprises the current OROSZ TWO and the SLAPP ONE SID procedures from Runway 15. The current published procedure charts are provided in Appendix A. The procedure charts depict the altitudes on each procedure.

Aircraft on the OROSZ TWO procedure departing Runway 15 climb with a right turn to a heading of 210-degrees or as assigned by ATC. Aircraft navigate a southwesterly to westerly-dispersed flight path influenced by wind, aircraft weight, and air speed. Generally, the flight path crosses over land use transitioning from industrial, commercial, to residential along the flight path to the southwest, and west. The flight path continues turning to the northwest over land use transitioning from residential to mountainous terrain of the Santa Susana Mountains and United States Forest Service managed lands. Air traffic control vector aircraft to cross the OROSZ fix to join the RNAV procedure to connect to the en route airway structure for flights to the north and northwest.

¹¹ Safety Risk Management Panel Members or subject matter experts are selected based on their technical expertise or operational responsibilities for the facility or system under consideration and their authority to make decisions for their respective organizations. (FAA Air Traffic Organization Safety Management System Manual, July 2017.)

¹² Classes of Airspace:

https://www.faa.gov/gslac/ALC/course_content.aspx?cID=42&sID=505&preview=true

¹³ Special use airspace is used to designate airspace in which certain activities must be confined, or where limitations may be imposed on aircraft operations that are not part of those activities. See

https://www.faa.gov/uas/where_to_fly/airspace_restrictions/.

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Aircraft on the SLAPP ONE SID procedure departing Runway 15 climb with a right turn to a heading of 210-degrees. Aircraft navigate a southwesterly to westerly-dispersed flight path influenced by wind, aircraft weight, and air speed. Generally, the flight path crosses over land use transitioning from industrial, commercial, to residential along the flight path to the southwest, and west. The flight path continues turning northeast over land use transitioning from residential to mountainous terrain of the San Gabriel Mountains and United States Forest Service managed lands. Air traffic control vector aircraft to the RAYVE fix to join the RNAV procedure to connect to the en route airway structure for flights to the east, northeast, and southeast.

Currently, aircraft depart Burbank on a heading of 210-degrees, which points aircraft towards the Los Angeles where approaching aircraft are on the downwind leg of the final approach. Additionally, the 210-degree heading puts departing aircraft in the opposite direction of the route filed per the aircraft's flight plan. The additional miles flown add time to completing the turn to the north, thereby adding to the time it takes the departing aircraft to cross the final approach path of arriving aircraft into Burbank, which adds to the complexity of managing Burbank operations.

The FAA Operations Network¹⁴ reports 84,692 itinerant operations for the calendar year 2017 for Burbank. Table 1 below details the type of operations; grouped by aircraft operation and method of navigation.

Table 1. Burbank Itinerant Operations Data: January 2017 through December 2017

Operation Type	Air Carrier	Air Taxi	General Aviation	Military
IFR Itinerant ¹⁵	51,478	18,809	14,430	243
VFR Itinerant	8	816	22,268	837

Note: IFR = Instrument Flight Rules, VFR = Visual Flight Rules

There are six categories -- (A) Heavy, (B) B757, (C) Large Jet, (D) Large Commuter, (E) Medium, (F) Small.¹⁶

- (A) Heavy: refers to any aircraft weighing more than 255,000 pounds such as the Boeing 747 or the Airbus A340;
- (B) B757: refers to the Boeing 757 all series;
- (C) Large Jet: refers to large jet aircraft weighing more than 41,000 and up to 255,000

¹⁴ The FAA Operations Network (OPSNET) is the official source of FAA air traffic operations.

<https://aspm.faa.gov/opsnet/sys/Airport.asp>, accessed June 01, 2018

¹⁵ Airport Operations. The number of arrivals and departures from the airport at which the airport traffic control tower is located. There are two types of operations: local and itinerant. Local operations are those operations performed by aircraft that remain in the local traffic pattern, execute simulated instrument approaches or low passes at the airport, and the operations to or from the airport and a designated practice area within a 20-mile radius of the tower. Itinerant operations are operations performed by an aircraft, either IFR, Special VFR, or VFR, that lands at an airport, arriving from outside the airport area, or departs an airport and leaves the airport area.

¹⁶ http://aspmhelp.faa.gov/index.php/Weight_Class, accessed June 01, 2018

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pounds such as the Boeing 737 or the Airbus A320;

- (D) Large Commuter: refers to large non-jet aircraft (turbo propeller engine) and small regional jets, weighing more than 41,000 and up to 255,000 pounds;
- (E) Medium: refers to small commuter aircraft including business jets weighing more than 12,500 up to 41,000 pounds such as the Learjet 35; and
- (F) Small: refers to small single or twin-engine (piston) aircraft weighing 12,500 pounds or less such as the Beech 90 or the Cessna Caravan.
- No Data/Other: refers to unspecified equipment.

Table 2 details the approximate number of total departure operations at Burbank by typical aircraft fleet mix by weight class.¹⁷

Table 2. Burbank Total Departures by Aircraft Weight Class
January 2017 through December 2017

Aircraft Weight Class	Total Departure Operations At Burbank
Heavy Jet	933
B757 Jet	57
Large Jet	22,651
Large Commuter	5,798
Medium Commuter	8,198
Small	4,809
No Data/Other	40

Table 3 details the approximate number by runway of daily departures on the OROSZ TWO and SLAPP ONE SID.¹⁸

Table 3. Approximate Number of Daily Departure Operations by Runway

Runway Number	OROSZ TWO (RNAV) Procedure	SLAPP ONE (RNAV) Procedure
8	2	1
15	39	30
26	1	1
33	1	1

¹⁷ FAA Traffic Flow Management System Count (TFMSC) Report contains data derived from the Air Traffic Airspace Lab's Traffic Flow Management System. Note: TFMSC does not represent the official traffic counts for the National Airspace System. <https://aspm.faa.gov/tfms/sys/tfms-server-x.asp>, accessed June 01, 2018

¹⁸ TARGETS Environmental Plug-In aircraft track data, *Average Annual Day Addendum to the Guidance for Noise Screening of Air Traffic Actions*

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There is a preferential runway use program in effect at Burbank. Approximately ninety-six percent of departure operations at Burbank utilize the Runway 8/Runway 15 configuration.¹⁹ Runway 15 is the primary runway for departures that would utilize the current OROSZ TWO and the SLAPP ONE procedures. Burbank uses a “voluntary curfew” applicable to scheduled airlines that asks them to refrain from scheduling or operating between 10:00 p.m. and 7:00 a.m. daily. General aviation operators may participate in the “voluntary curfew,” but they are otherwise restricted under pre-Airport Noise and Capacity Act of 1990 approved noise rules based on FAA Advisory Circulars pertaining to aircraft noise.²⁰

Section 3.3: Alternatives Eliminated from Consideration

The FAA eliminated three alternatives to the proposed OROSZ THREE and SLAPP TWO Open SIDs from consideration:

- The No Action Alternative comprises the current OROSZ TWO and SLAPP ONE procedures, by which aircraft follow the published procedure current flight path. The No Action alternative does not meet the purpose and need of the Proposed Action. The No-Action alternative was eliminated, as amendments to the current OROSZ TWO and the SLAPP ONE are necessary to meet the change in procedure criteria that allow embedded radar vector segments to be included in the departure procedure.
- An alternative was suggested to laterally move the proposed procedure segment from the JAYTE waypoint to the TEAGN waypoint north to approximately follow Highway 101. This shift in procedure flight path would place aircraft on a flight path that would be in conflict with the final approach course to the primary arrival runway at Burbank, Runway 08. Therefore, this alternative was eliminated from consideration.
- An alternative was suggested to laterally move the proposed procedure segment from the JAYTE waypoint to the TEAGN waypoint south. To maintain safe and efficient control of air traffic in the area, the proposed procedure must remain north of the Los Angeles Class B controlled airspace. A shift of the proposed procedure flight path to the south would encroach on the Los Angeles Class B controlled airspace. Additionally, a more southerly flight path would enter a portion of airspace where VFR air traffic routinely transit a narrow airspace corridor between the Los Angeles Class B and Burbank Class C controlled airspaces. Therefore, this alternative was eliminated from consideration.

¹⁹ PBN Dashboard Airport Metrics, <https://pbn.mitre.org/pbnservices/pbn/FaaObserver.html>, accessed June 01, 2018

²⁰ FAA Advisory Circular 36-1H or 36-2C

Section 3.4: Proposed Action

The proposed OROSZ THREE and SLAPP TWO SID procedures would replace the current OROSZ TWO and the SLAPP ONE SID. Due to a change in procedure design criteria, embedded radar vector segments would be included in the departure procedures. At the time the OROSZ TWO and SLAPP ONE SID were developed, procedure design criteria did not allow for the creation of an Open SID utilizing PBN technology.

Aircraft on the proposed OROSZ THREE and SLAPP TWO procedures would follow the runway heading for approximately 1.21 nautical miles prior to turning toward the JAYTE fix. The proposed procedures would follow a 215-degree heading to cross the JAYTE fix at approximately 1,622 feet AGL (or 2,400 feet mean sea level). From the JAYTE fix, aircraft would fly direct to the TEAGN fix on a heading of 260-degrees to cross the TEAGN fix at 3,822 feet AGL (or 4,000 feet mean sea level).

The proposed ATC assigned westbound turn flight path directs aircraft away from Los Angeles International Airport arrival operations and provides initial separation from parallel arrival flight paths to Burbank. Exit points from the terminal airspace structure to the en route airspace structure are north of the airport; and the ATC assigned flight path turns aircraft around sooner and pointing towards their filed route while gaining altitude in order to get above Van Nuys Airport and integrate with other area departure procedures and flows. Once departing aircraft are above approaching aircraft, ATC would utilize the proposed Open SID procedure and vector departing aircraft through the congested airspace to re-join the published RNAV departure route north of Burbank.

Airspace modelling was conducted using the Terminal Area Route Generation, Evaluation, and Traffic Simulation (TARGETS). The proposed procedures TARGETS Distribution packages are available in Appendix B. The summary of the output from the modelling is discussed below.

The number of aircraft operations at Burbank and the aircraft fleet mix are not expected to change as a result of the implementation of the proposed Open SID procedures. Aircraft operational use of the proposed procedures are subject to safety and operational restrictions and potential conflicts, including, but not limited to events, other air traffic, weather, and emergencies.

Given the complexity of air traffic in the Burbank airspace area as described above, the FAA determined the preferred alternative is the Proposed Action of implementing the OROSZ THREE and SLAPP TWO Open SID procedures. The preferred alternative would meet procedure design criteria to provide the safest and most efficient routing of aircraft departing Runway 15 at Burbank. Additionally, the dynamic nature of the proposed Open SIDs with the embedded vectored turn in conjunction with the initial RNAV segment will aid ATC in efficiently managing aircraft in the Burbank Airspace.

Section 4: Preliminary Environmental Impact Analysis

As explained above, the use of a CATEX to satisfy NEPA is precluded if the proposed action involves any of the circumstances described in Order 1050.1F, Paragraph 5-2(b) and has the potential for significant impact. The determination of whether a proposed action may have a significant environmental impact under NEPA is made by considering the relevant environmental impact categories and comparing impacts to the FAA's thresholds of significance, where applicable, as well as any other relevant federal laws and statutes, Executive Orders, and regulations as outlined in with FAA Order 1050.1F.²¹

There are 14 environmental impact categories identified in FAA Order 1050.1F. Only those areas where there may be significant environmental impacts caused by the Proposed Action, or where there are uncertainties which require evaluation are analyzed in this document. The Proposed Action does not involve land acquisition, physical disturbance, or construction activities. Given the limited scope of the Proposed Action, the following environmental impact categories were assessed and were considered to have negligible or non-existent effects from the Proposed Action, and in accordance with CEQ regulations, did not warrant further analysis:

- Biological resources (including fish, wildlife, and plants)
- Climate
- Coastal Resources
- Farmlands
- Hazardous Materials, Solid Waste, and Pollution Prevention
- Land Use
- Natural Resources and Energy Supply
- Socioeconomic Impacts and Children's Environmental Health and Safety Risks.
- Water Resources (Including Wetlands, Floodplains, Surface Waters, Groundwater, and Wild and Scenic Rivers)

The following remaining impact categories below will be analyzed to determine their impacts on the relevant study area for the affected environment;

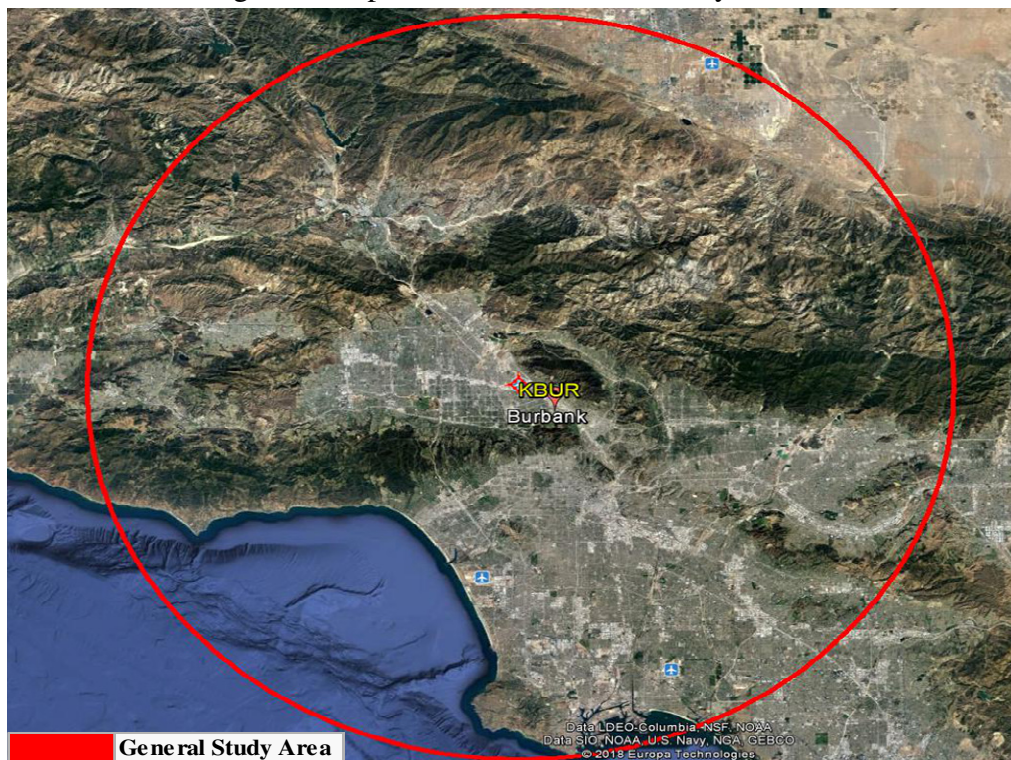
²¹ The determination of whether a proposed action may have a significant environmental effect is made by considering any requirements applicable to the specific resource [see FAA Order 1050.1, paragraph 4-3. and Exhibit 4-1].

- Noise and compatible land use
- Air Quality
- Department of Transportation Act, Section 4(f)
- Historical, architectural, archeological, and cultural resources
- Environmental Justice (*This is a subcategory under the general heading of Socioeconomic Impacts*), and
- Visual impacts

Section 4.1: General Study Area

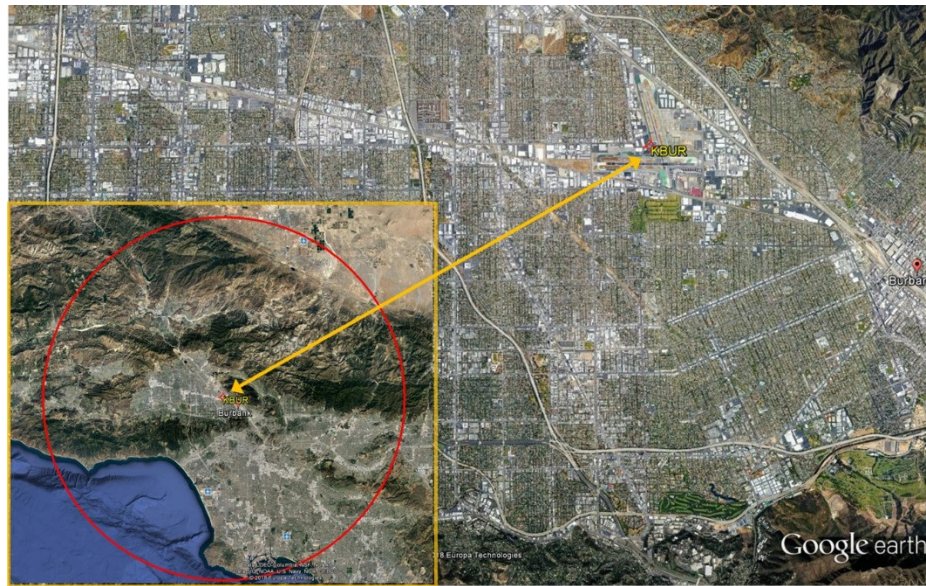
The preliminary environmental analysis considered potential impacts within the Proposed Action General Study Area (GSA), which encompasses roughly a 30 nautical mile radius around Hollywood Burbank Airport, where departing aircraft cross the GSA boundary at 10,000 feet AGL. The GSA, approximately 3,750 square miles in area, is shown in Figures 1 and Figure 2 below.

Figure 1. Depiction of the General Study Area²²



²² Figure 1 - Not to scale.

Figure 2. Depiction of Location of Burbank Airport within the General Study Area²³

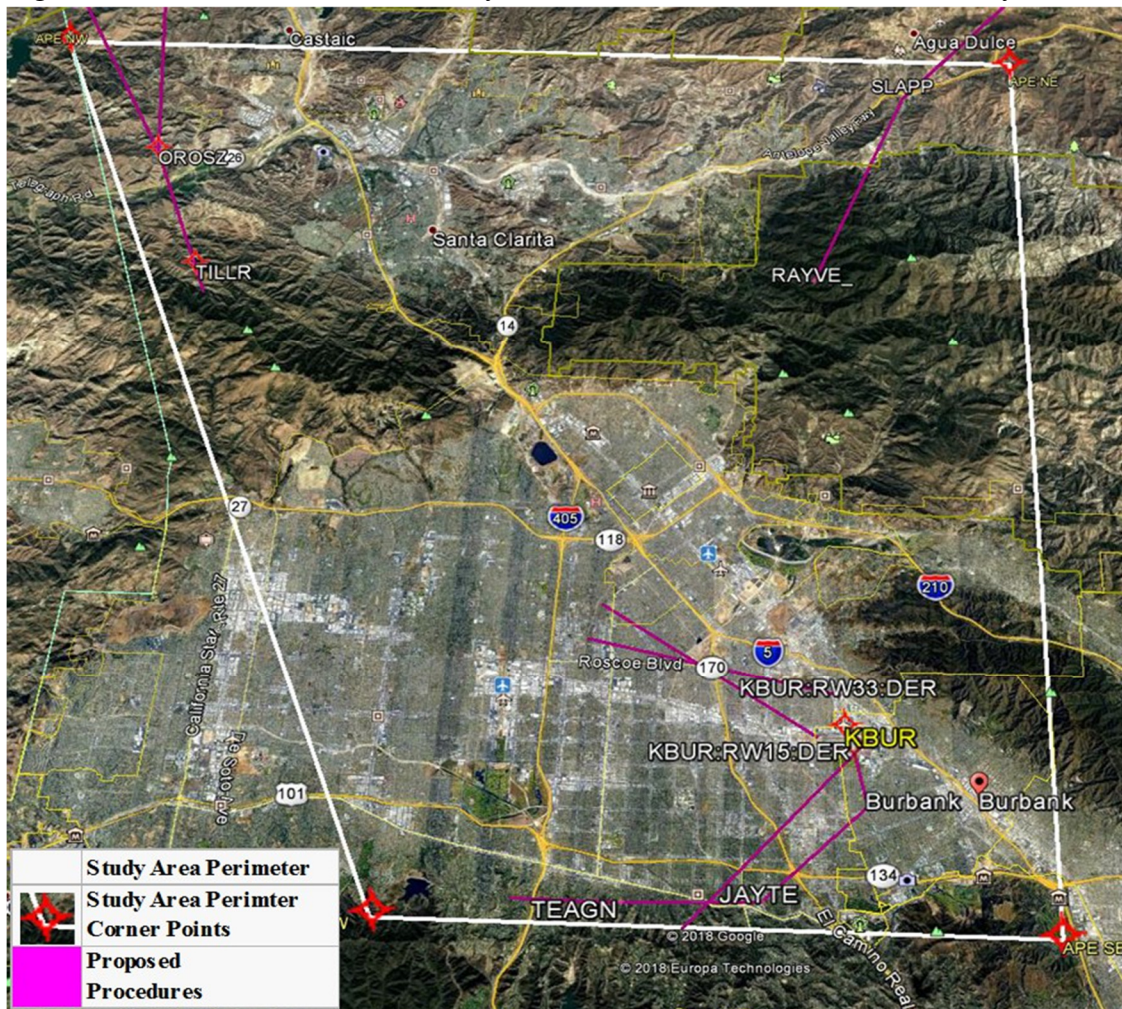


Section 4.1.2: Affected Environment Study Area

The study area for the Affected Environment was determined by evaluating the Proposed Action and identifying the area that contains the proposed OROSZ THREE and the SLAPP TWO procedures. The area is approximately 477 square miles. Figure 3 below depicts the proposed procedures within the Affected Environment Study Area.

²³ Figure 2 - Not to scale.

Figure 3. Affected Environment Study Area within the Burbank General Study Area²⁴

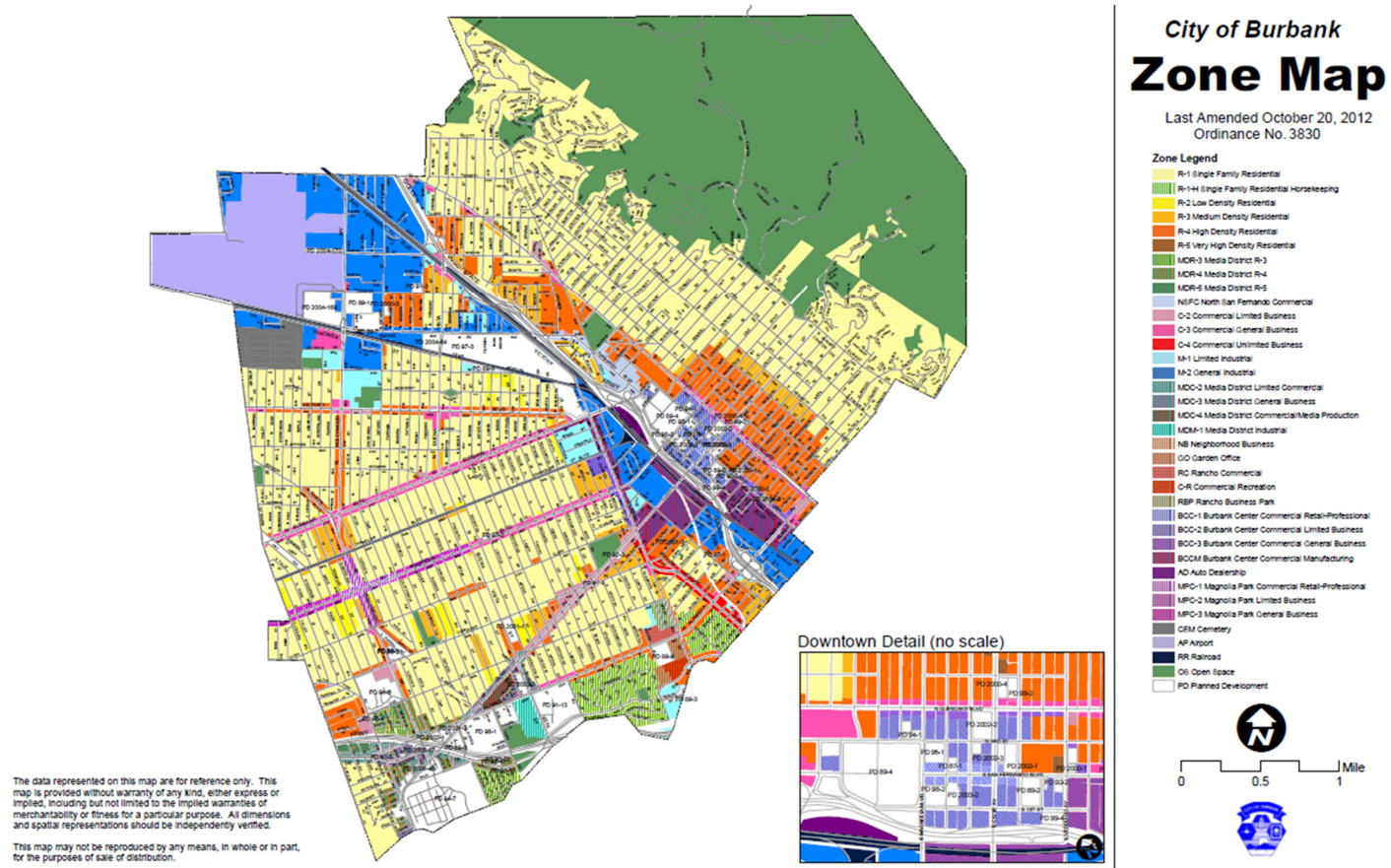


Hollywood Burbank Airport is a public airport located approximately three miles northwest from the downtown area of the City of Burbank, in Los Angeles County, California. The City of Burbank extends to the east and to the south of the airport property. The City of Los Angeles extends to the north, and to the west of the airport property. The airport serves the northern, greater Los Angeles area. Land use in the immediate vicinity surrounding the airport is industrial. Surrounding the industrial areas are commercial and residential areas. The Verdugo Mountain Park and La Tuna Canyon Park are located approximately one nautical mile to the east of the airport at its closest point. The FAA reviewed the City of Burbank Planning and Development Department, City of Burbank Zoning Map, which identifies existing land use within the greater Burbank area.²⁵ Refer to Figure 4 below for City of Burbank zone map.

²⁴ Figure 3 – Not to scale.

²⁵ <http://www.burbankca.gov/departments/community-development/planning/zoning-information>. Accessed June 05, 2018.

Figure 4. Depiction of the City of Burbank Land Use Diagram²⁶



The FAA further reviewed individual resources within this area, including parks and historic properties, to determine whether the Part 150 land use guidelines are relevant to their value, significance, and enjoyment.

Section 4.2: Noise and Noise-Compatible Land Use

The compatibility of existing and planned land uses with aviation actions is usually determined in relation to the level of aircraft noise by comparing the Day-Night Average Sound Level (DNL)²⁷ values to the land use compatibility guidelines in FAA's regulations at 14 CFR Part 150. Part 150 identifies a DNL level of 65 decibels (dB) and below as compatible with residential and most other uses (See Exhibit 11-3 of the FAA Order 1050.1F, Desk Reference).

²⁶ Figure 4 – Not to scale.

²⁷DNL takes into account the noise level of each individual aircraft event, the number of times those events occur, and the time of day in which they occur. DNL includes a 10 dB noise penalty added to noise events occurring from 10:00 p.m. to 7:00 a.m., to reflect the increased sensitivity to noise and lower ambient sound levels at night. FAA Order 1050.1F requires use of the DNL metric in NEPA analyses, although DNL analysis may optionally be supplemented on a case-by-case basis to characterize specific noise impacts.

Ordinarily, actions that are categorically excluded from NEPA do not require detailed environmental analysis. To identify the potential for extraordinary circumstances involving impacts on noise levels of noise sensitive areas, the FAA conducts an initial noise analysis using a “screening tool.” Screening tools use simplified but conservative modeling assumptions to quickly provide estimates of where noise increases may occur.²⁸ While a comprehensive modeling tool also needs detailed inputs, a noise screening tool is optimized to take advantage of simplified inputs to produce results for a more narrowly defined purpose, such as a preliminary assessment of potential noise impacts. This analysis enables the FAA to identify areas that may require additional consideration prior to determining that use of a CATEX is appropriate.

Section 4.2.1: Methodology for Assessing Noise Impacts

To determine whether aircraft noise impacts are significant under NEPA, the FAA considers whether predicted increase in noise associated with the proposed action exceed defined thresholds of significance. For aircraft noise, that threshold is an increase of DNL 1.5 dB or more for a noise sensitive area that is exposed to noise at or above the DNL 65 dB noise exposure level, or that will be exposed at or above the DNL 65 dB level due to a DNL 1.5 dB or greater increase, when compared to the no action alternative for the same timeframe.

Order 1050.1F notes that special consideration needs to be given to the evaluation of the significance of noise impacts on certain noise sensitive areas (including, but not limited to, noise sensitive areas within national parks; national wildlife and waterfowl refuges; and historic sites, including traditional cultural properties) where the land use compatibility guidelines in 14 CFR Part 150 are not relevant to the value, significance, and enjoyment of the area in question.

FAA’s noise screening tool for projects involving air traffic changes over large areas and altitudes over 3,000 feet AGL uses features available within the Terminal Area Route Generation Evaluation and Traffic Simulation (TARGETS), a flight procedure design tool, combined with the Aviation Environmental Design Tool (AEDT) Environmental Plug-In. This noise screening tool identifies areas that may be exposed to significant noise impacts (i.e., an increase of DNL 1.5 dB or more in an area that is exposed to noise at or above the DNL 65 dB noise exposure level.)

The noise screening tool also identifies certain areas with potential increases in areas exposed to lower levels of noise, specifically:

²⁸ In general, modeling accuracy is dependent on a range of factors, including 1) how well the fundamental quantity to be modeled is understood and calculated, and 2) how accurately the inputs needed by the model are provided. All aircraft noise modeling tools must accurately account for the fundamentals of noise. However, while a comprehensive modeling tool also needs detailed inputs, a noise screening tool is optimized to take advantage of simplified inputs to produce results for a more narrowly defined purpose, such as a preliminary assessment of potential noise impacts. As a result, noise screening outputs are not suitable for reporting more detailed or precise noise results at specific locations.

1. For DNL 60 dB to less than 65 dB: ± 3 dB
2. For DNL 45 dB to less than 60 dB: ± 5 dB

The FAA refers to changes in noise exposure levels meeting these criteria as “reportable.” Although they do not exceed the threshold of significance for most land uses where the Part 150 land use guidelines are not relevant to the value, significance, and enjoyment of the area in question, they are factors to consider in whether there are extraordinary circumstances rendering a CATEX inapplicable.

To determine the potential impact(s) from noise, the screening analysis compares the baseline scenario to an alternative scenario or scenarios. The baseline scenario typically represents the existing procedures as they are flown at the time of the modelling, or the No Action Scenario. The alternative scenario(s) represents the radar tracks assigned to the Proposed Action and any other alternatives being considered

Section 4.2.2: Noise Screening Analysis

Potential noise impacts were screened using the AEDT Environmental Plug-In for TARGETS. Two scenarios were evaluated for this noise screen.

1. No Action Scenario: The scenario represents radar tracks as they are currently flown and is considered the baseline. Noise screening of the No Action Scenario modeled the noise impact(s) of Burbank arrivals and departures as they are currently flown. Assigned aircraft routes were unchanged.
2. Proposed Action Scenario: The scenario screened using the simplifying assumption that Burbank departure aircraft would be assigned to the proposed RNAV SID that most closely matched their flight track regardless of aircraft equipment or type. This also incorporates the simplifying assumption that all aircraft are equipped and capable of flying RNAV procedures.

Section 4.2.3: Noise Screening Track Data

To determine projected noise levels on the ground, it is necessary to determine the frequency of aircraft operations and the position of the aircraft in space laterally (i.e., ground tracks), and vertically (i.e., altitude). Arrival and departure direction to and from an airport generally depend upon the geometry of the airport’s runways and approved air traffic management procedures, but are primarily dictated by wind and weather conditions. Historical radar track data provides information regarding lateral path definitions, aircraft types, time of day operations, runway usage percentages for departure/arrival streams and day/night traffic ratios.

Historical radar track data was obtained from the FAA’s National Offload Program²⁹. Track data was collected for 90 randomly selected days (using a random day generator) during calendar year 2017 (“2017 Track Data”).³⁰ The selection of 90 random days is considered to best represent average traffic counts and traffic flows accounting for seasonal variations and peak travel times for Burbank.

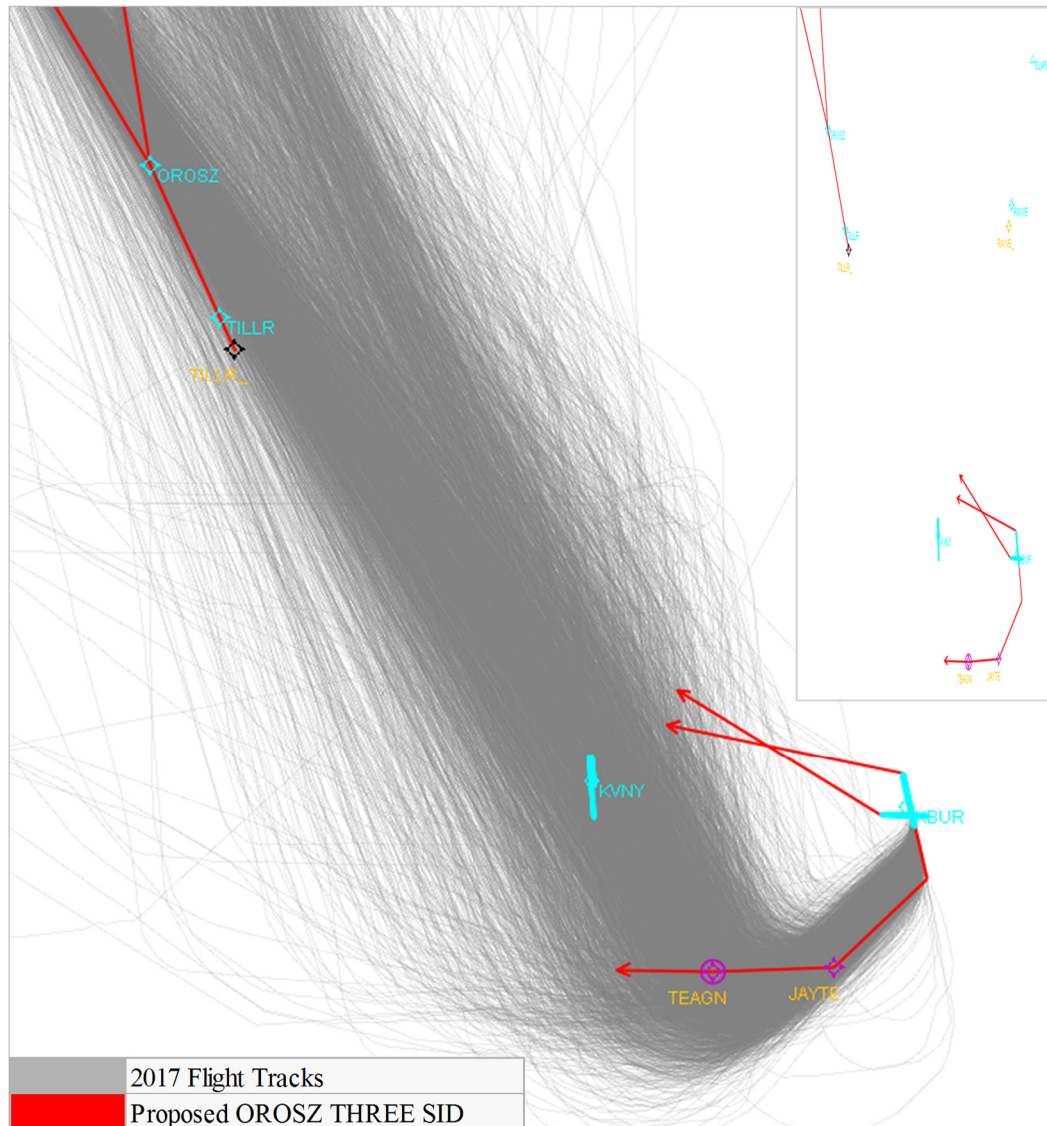
Using the AEDT Environmental Plug-In, backbones for each departure procedure were created, accounting for the typical dispersion of an Open SID procedures. To ensure a consistent number of operations and a consistent fleet mix across alternatives, the same flights that were used for the No Action scenario were applied to the Proposed Action scenario backbones. This ensured that differences across scenarios were attributable to flight path changes only.

A separate noise screening analysis was run for each scenario to establish the noise exposure levels for that scenario. Once the two scenarios were screened individually, the TARGETS AEDT Environmental Plug-In Tool was used to compare the Proposed Action Scenario to the No Action Scenario to evaluate whether implementing the Proposed Action is expected to result in significant noise impacts when compared to the No Action Scenario. Figure 5 and Figure 6 depict the proposed Open SID procedures with the 2017 flight tracks associated with each departure route.

²⁹ All traffic data was obtained using the FAA Southern California Terminal Radar Approach Control and the FAA Los Angeles Air Route Traffic Control Center as the radar source facilities.

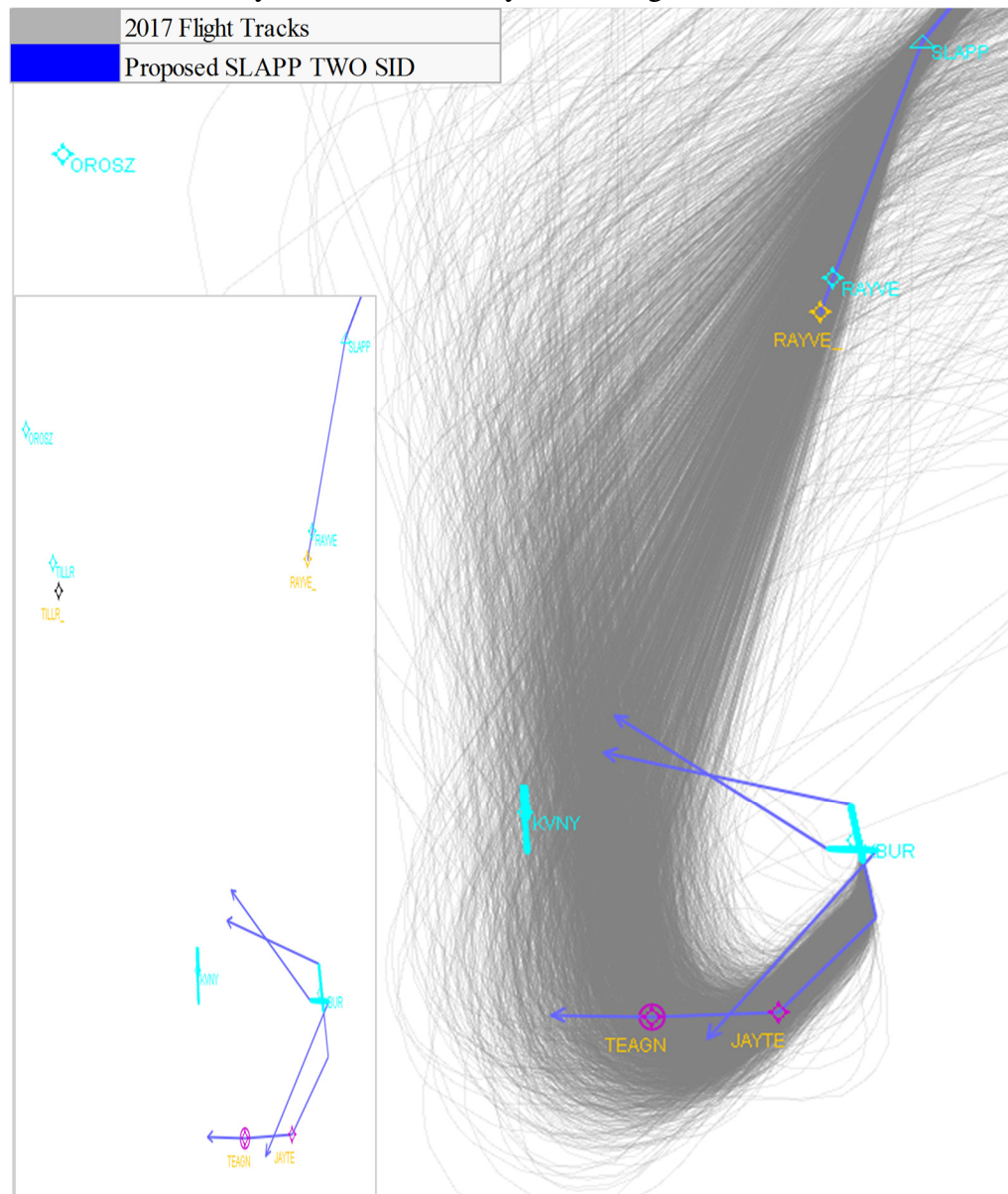
³⁰ An integral part of noise screening is the collection of average annual day (AAD) radar track data for noise modeling. The MITRE CAASD *Average Annual Day Addendum to the Guidance for Noise Screening of Air Traffic Actions* document prepared for the FAA proposes an objective method for determining the minimum subsample size of radar track data required and the sampling technique.

Figure 5. Proposed OROSZ THREE SID with
Overlay of 90 Random Days 2017 Flight Tracks³¹



³¹ Figure 5 - Not to scale.

Figure 6. Proposed SLAPP TWO SID with
Overlay of 90 Random Days 2017 Flight Tracks³²



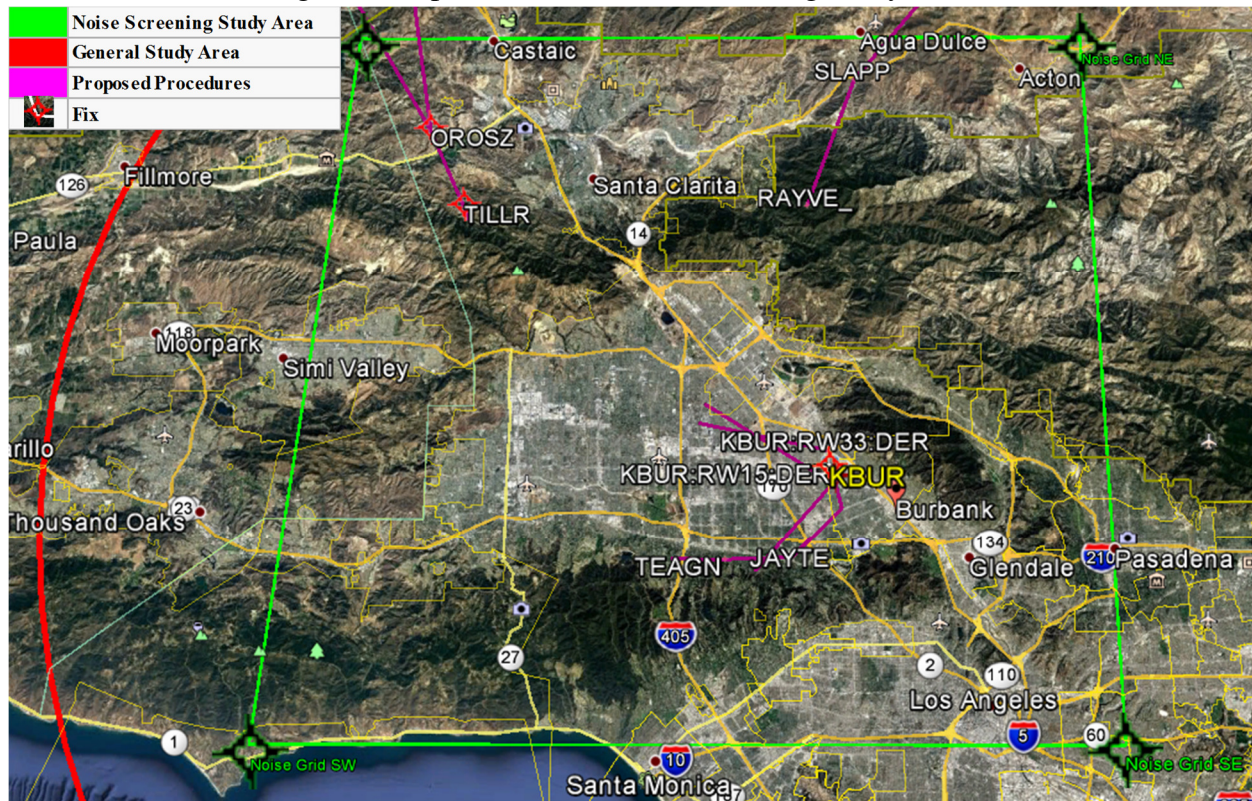
Section 4.2.4: Noise Screening Scenarios

The study area for the noise screening analysis is the geographic area that has the potential to be impacted by noise from the Proposed Action. The noise screening analysis focused on a change-in-exposure analysis, which examined the change in noise levels at a set of grid points. The noise study area, the area covered by the grid, was established to include all areas in which the No Action screening produced a DNL result of greater than DNL 45 dB. Refer to Figure 7 below. Noise exposure calculations were based on a rectangular grid (receptor set) at airport field elevation with

³² Figure 6 - Not to scale.

evenly spaced grid points (receptors). Grid points were spaced evenly at 0.25 nautical mile (NM) intervals.

Figure 7. Depiction of the Noise Screening Study Area³³



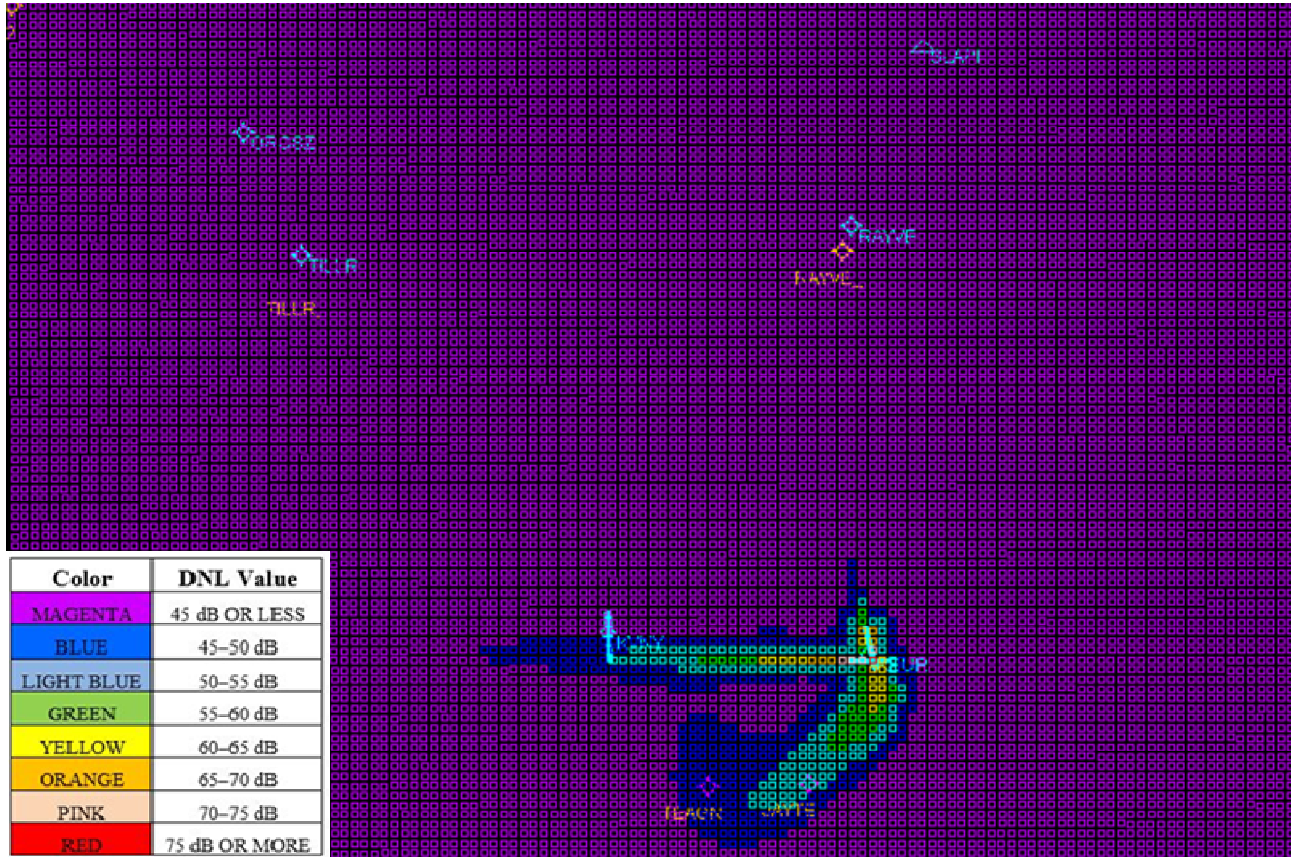
Two scenarios were evaluated for this noise screen. To determine the potential impact(s) from noise, the screening analysis compares the baseline scenario, or No Action scenario to the alternative scenario, or Proposed Action scenario.

1. No Action scenario: The scenario represents radar tracks as they are currently flown and is considered the baseline. Noise screening of the No Action scenario modeled the noise impact(s) of Burbank arrivals and departures as they are currently flown. Assigned aircraft routes were unchanged.
2. Proposed Action scenario: The FAA screened this scenario using the simplifying assumption that Burbank departure aircraft would be assigned to the proposed route that most closely matched their flight track regardless of aircraft equipage or type. This incorporates the simplified assumption that all aircraft are equipped and capable of flying RNAV procedures.

³³ Figure 7 - Not to scale.

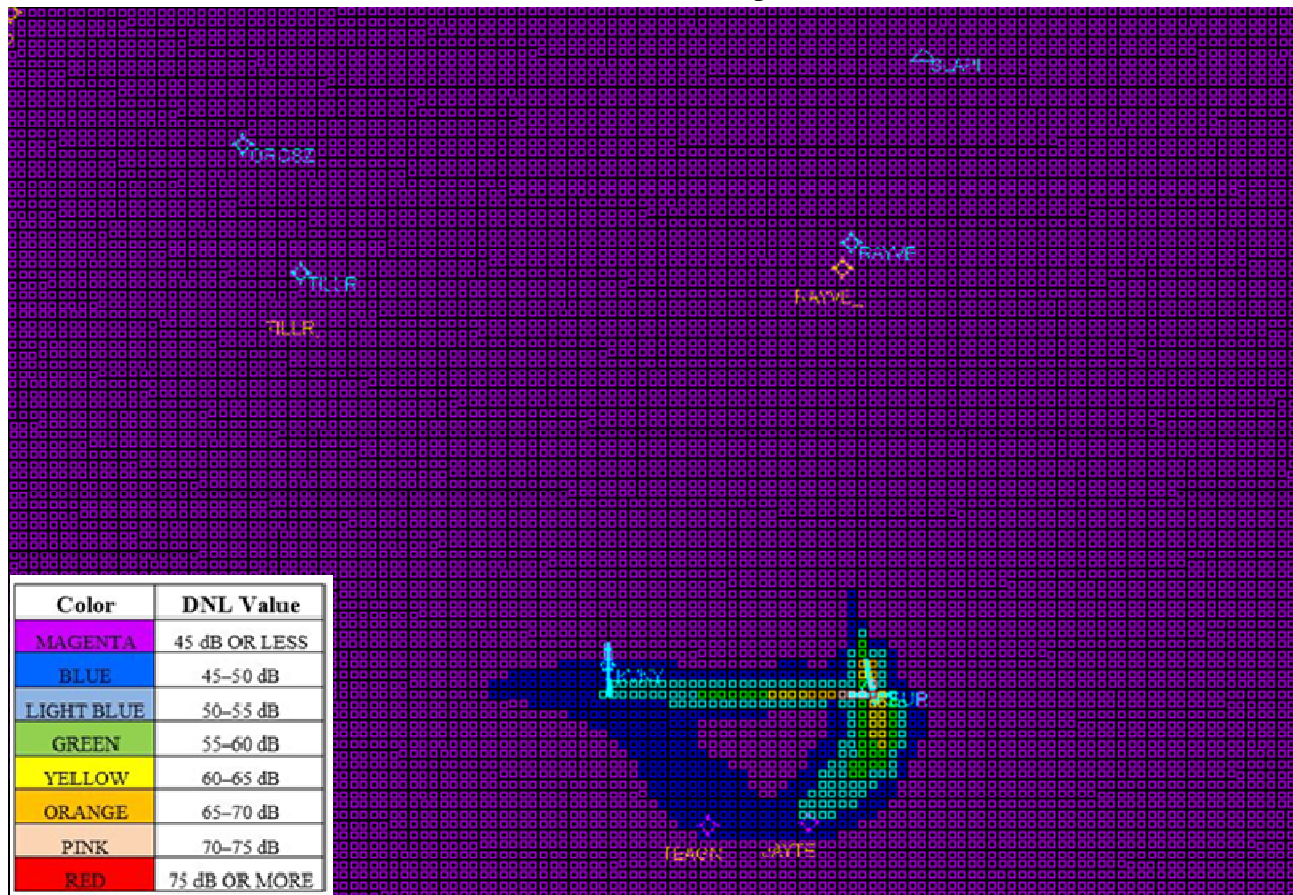
FAA conducted a separate noise screening analysis for each scenario. The TARGETS AEDT Environmental Plug-In graphically displays the noise exposure levels for each scenario in a grid point map. Figure 8 depicts the noise exposure grid point values for the No Action Scenario (the baseline). Figure 9 depicts the noise exposure grid point values for the Proposed Action Scenario.

Figure 8. Depiction of No Action Scenario (Baseline)
Grid Point Noise Exposure Results³⁴



³⁴ Figure 8 – Not to scale.

Figure 9. Depiction of Proposed Action Scenario
Grid Point Noise Exposure Results³⁵

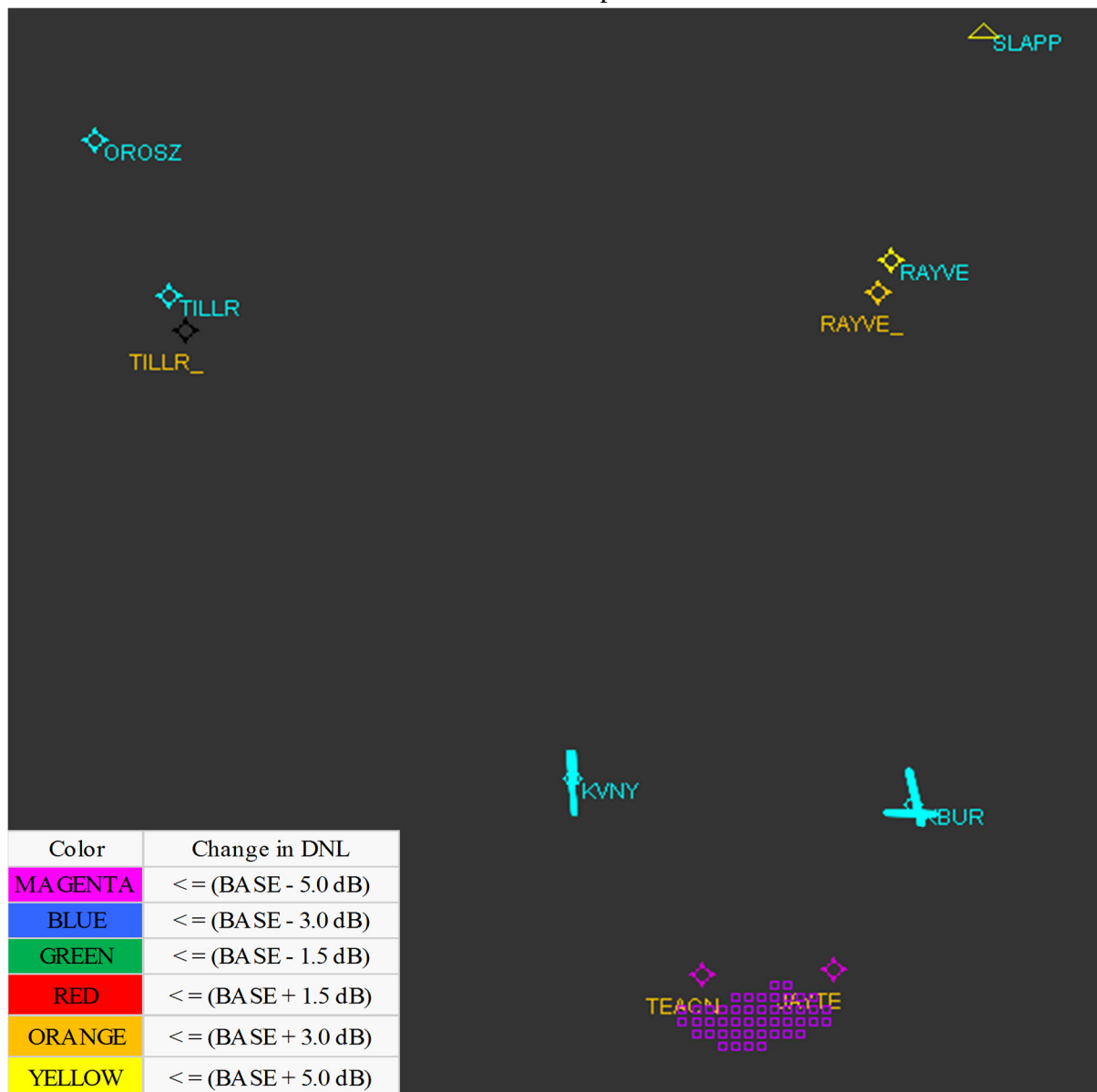


Once the scenarios were screened individually for potential noise impacts, the TARGETS AEDT Environmental Plug-In Tool was used to compare the Proposed Action scenario to the No Action scenario to evaluate whether implementing the Proposed Action is expected to result in significant noise impacts when compared to the No Action scenario. The change in noise exposure levels when comparing the Proposed Action scenario to the No Action scenario is illustrated in Figure 10 below.

The results of the noise screening analysis indicate that the Proposed Action would not result in significant noise impacts relative to the No Action scenario. (Refer to Section 4.2 above for the noise exposure level thresholds.) The magenta color grid points in Figure 10 below indicate a change in noise exposure of a DNL 5 dB decrease within the DNL 45-50 No Action noise exposure level. This change in noise exposure level is related to the modelled change in the proposed flight paths associated with the Open SID departures.

³⁵ Figure 9 - Not to scale.

Figure 10. Depiction of the Comparison of Proposed Action Scenario to No Action Scenario
Grid Point Noise Exposure Results³⁶



Section 4.3: Air Quality

This section considers the potential for the Proposed Action to have impacts on air quality that could preclude use of a CATEX. Any air quality impacts would be the result of increased emissions from aircraft using the amended procedures as compared to the No Action alternative. There are no other emissions sources associated with the Proposed Action.

³⁶ Figure 10 – Not to scale.

In the United States (U.S.), air quality is generally monitored and managed at the county or regional level. The U.S. Environmental Protection Agency (EPA), pursuant to mandates of the federal Clean Air Act, (42 U.S.C. § 7401 et seq. (1970)), has established the National Ambient Air Quality Standards (NAAQS) to protect public health, the environment, and quality of life from the detrimental effects of air pollution. Standards have been established for the following criteria air pollutants: carbon monoxide (CO), lead (Pb), nitrogen dioxide (NO₂), ozone (O₃), particulate matter (PM), and sulfur dioxide (SO₂). Particulate Matter standards have been established for inhalable coarse particles ranging in diameter from 2.5 to 10 micrometers (µm) (PM₁₀) and fine particles less than 2.5 µm (PM_{2.5}) in diameter.

According to FAA Order 10501F, Exhibit 4-1, an emissions impact is significant if “[t]he action would cause pollutant concentrations to exceed one or more of the NAAQS, as established by the EPA under the Clean Air Act, for any of the time periods analyzed, or to increase the frequency or severity of any such existing violations.”

Under section 176(c)(4)) of the Clean Air Act (42 U.S.C. 7506(c)) and EPA regulations at 40 CFR Parts 51 and 93 (commonly referred to as the General Conformity Rule), the FAA must ensure that its activities do not cause or contribute to new violations of the NAAQS; worsen existing violations of the NAAQS or delay attainment of the NAAQS. When developing the General Conformity Rule, the EPA recognized that many actions conducted by Federal agencies do not result in substantial increases in air pollutant emissions in nonattainment and maintenance areas. Therefore, the EPA established threshold levels (also referred to as *de minimis* levels) for emissions of each of the criteria pollutants. When the sum of the increases in direct and indirect emissions from a project would be less than the *de minimis* levels, a project would not require a general conformity determination.

The General Conformity Rule also allows Federal agencies to develop a list of actions that are presumed to conform to a State Implementation Plan (SIP).³⁷ This can be done by clearly demonstrating that the total of direct and indirect emissions from these types of activities would not cause or contribute to any new violation of any standard in any area; interfere with provisions in the applicable SIP for maintenance of any standard; increase the frequency or severity of any existing violation of any standard in any area; or delay timely attainment of any standard or any required interim emission reductions or other milestones in any area including emission levels specified in the applicable SIP. Alternatively, Federal agencies can establish actions that are presumed to conform by providing documentation that emissions from these types of actions are below the applicable *de minimis* levels. The FAA published a list of Presumed to Conform activities in the Federal Register on July 30, 2007.³⁸

³⁷ A SIP is a collection of regulations and documents used by a state, territory, or local air district to reduce air pollution in areas that do not meet NAAQS.

³⁸ 72 Fed. Reg. 41565

Section 4.3.1: Air Quality Analysis

The FAA's Presumed to Conform list includes "Air Traffic Control Activities and Adopting Approach, Departure and Enroute Procedures for Air Operations." Air traffic control activities are defined for this purpose as "actions that promote the safe, orderly, and expeditious flow of aircraft traffic, including airport, approach, departure, and en route air traffic control. Airspace and air traffic actions (e.g., changes in routes, flight patterns, and arrival and departure procedures) are implemented to enhance safety and increase the efficient use of airspace by reducing congestion, balancing controller workload, and improving coordination between controllers handling existing air traffic, among other things."

FAA determined that project-related aircraft emissions released into the atmosphere below the inversion base for pollutant containment, commonly referred to as the "mixing height," (generally 3,000 feet above ground level) can be presumed to conform when modifications to routes and procedures are designed to enhance operational efficiency (i.e., to reduce delay), increase fuel efficiency, or reduce community noise impacts by means of engine thrust reductions.³⁹ The Proposed Action falls within the FAA's Presumed to Conform list of covered air traffic related activities.

Section 4.4: Department of Transportation Act, Section 4(f)

Section 4(f) of the U.S. Department of Transportation Act of 1966 (now codified at 49 U.S.C. § 303) protects significant publicly owned parks, recreational areas, wildlife and waterfowl refuges, and public and private historic sites. Figure 11 depicts the location of Section 4(f) property boundaries within the Affected Environment Study Area. An impact on properties protected under Section 4(f) of the Department of Transportation Act is one of the factors FAA considers in determining whether there are extraordinary circumstances that would preclude use of a CATEX to satisfy NEPA requirements for a proposed action. Section 4(f), as amended and re-codified at 49 U.S.C. § 303(c), states that, subject to exceptions for *de minimis* impacts:

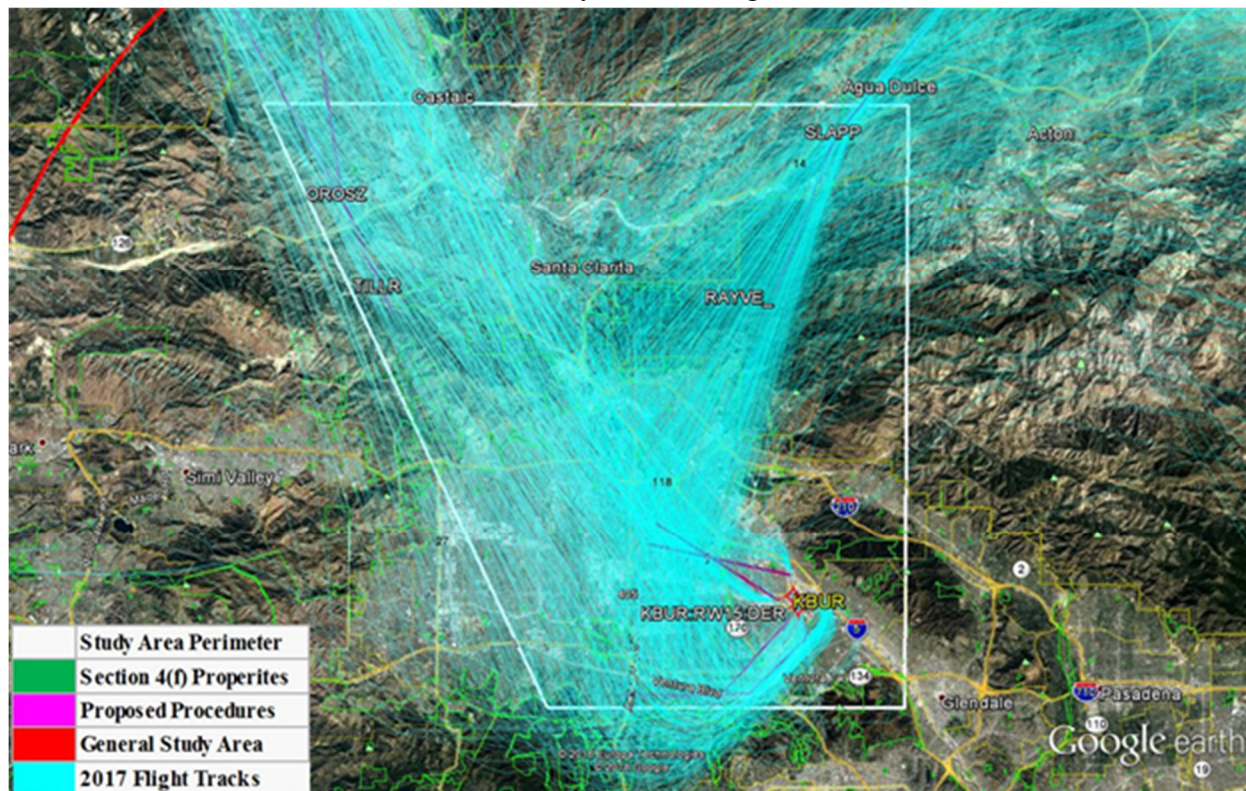
... the Secretary [of Transportation] may approve a transportation program or project . . . requiring the use of publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, State, or local significance, or land of an historic site of national, State, or local significance,⁴⁰ (as determined by the officials having jurisdiction over the park, area, refuge, or site) only if . . . there is no feasible and prudent alternative to the use of such land and the program or

³⁹ 72 Fed. Reg. 41578.

⁴⁰ There is no prescribed format; however, the documentation should cite the CATEX(s) used, describe how the proposed action fits within the category of actions described in the CATEX, and explain that there are no extraordinary circumstances that would preclude the proposed action from being categorically excluded." FAA Order 1050.1F. Section 5-3.d.

project includes all possible planning to minimize harm to the park, recreation area, wildlife and waterfowl refuge, or historic site resulting from the use.

Figure 11. Depiction of the Location of Section 4(f) Properties
With Overlay of 2017 Flight Tracks⁴¹



Civilian jet aircraft are currently overflying these areas, and would continue to overfly these areas. The number of aircraft operations and the aircraft fleet mix are not expected to change as a result of the implementation of the Proposed Action. As noted above, the Proposed Action would not result in noise levels at properties protected by Section 4(f) that would be incompatible with the land uses specified in the Part 150 guidelines. In addition, the results of the noise screening analysis indicated no significant changes in noise exposure levels as a result of the Proposed Action. Furthermore, the Proposed Action does not involve land acquisition, physical disturbance, or construction activities. Therefore, the FAA has concluded that the Proposed Action would not result in a constructive use of properties protected by Section 4(f).

⁴¹ Figure 10 – Not to scale.
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Section 4.5: Historical, Architectural, Archaeological and Cultural Resources

An adverse effect on cultural resources protected under Section 106 of the National Historic Preservation Act (NHPA) of 1966 (54 U.S.C. § 300101 et seq., as amended) that results in a significant impact is another extraordinary circumstance that would preclude use of a CATEX. Section 106 requires federal agencies to consider the effects of their undertakings on properties listed or eligible for listing in the National Register of Historic Places (“National Register”). For the purposes of Section 106 of the NHPA, the undertaking is the Proposed Action described above. Compliance with Section 106 requires consultation to identify historic properties that might be affected by the undertaking and the development of approaches to avoid, minimize or mitigate any adverse effects on those properties. The specific requirements for consultation are set forth in regulations of the Advisory Council on Historic Preservation at 36 CFR part 800.

Section 4.5.1: Definition of the Area of Potential Effect

Federal regulations define the Area of Potential Effect (APE) as the geographic area or areas within which an undertaking may directly or indirectly cause alternation in the character or use of historic properties, if any such properties are present. “Effects” are further defined by the regulations as alterations to the characteristics of a historic property qualifying it for inclusion in or eligibility for the National Register. The APE is influenced by the scale and nature of the undertaking and may vary for different kinds of effects caused by the undertaking.

For this undertaking, to delineate the proposed APE, the FAA applied the Study Area identified for the Affected Environment analysis in this environmental review. (See Section 4.1.2 above). Table 4 below details the location of the four corner points for the proposed APE perimeter as plotted on Google Earth.

Table 4. Burbank Proposed Area of Potential Effect Perimeter Corner Point Location

Perimeter Corner Point	Latitude	Longitude
APE NE Corner	34°28'51.33"N	118°16'50.25"W
APE SE Corner	34° 8'7.93"N	118°16'52.10"W
APE SW Corner	34° 8'7.93"N	118°31'41.93"W
APE NW Corner	34°28'51.33"N	118°43'46.43"W

The FAA initiated consultation in September 2018 with the California Office of Historic Preservation. A separate search of the United States Department of the Interior Bureau of Indian Affairs database was completed to determine the presence of traditional cultural properties within the APE. The search accessed through Google Earth indicated no federally recognized tribal lands identified within the proposed APE. Appendix C, *Consultation Correspondence*, summarizes and includes copies of correspondence with potential consulting parties to date. The consultation process is ongoing to address potential effects associated with the Proposed Action.

Section 106 regulations direct federal agencies to make reasonable and good faith efforts to identify historic properties within the APE (36 CFR § 800.4(b)(1)). A search of the National Register accessed through Google Earth identified properties listed on the National Register within the APE. Figure 12 below depicts the approximate location of the properties listed on the National Register.

Study Area Perimeter

Property Listed on the National Register of Historic Places

Proposed Procedures

General Study Area

⁴² Figure 12 – Not to scale.
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Table 5. Listed Properties on the National Register

Listed Property Name	NRHP Applicable Criteria	National Park Service (NPS) Reference Number
Campo de Cahuenga	Architecture/Engineering	72001602
U.S. Post Office – Burbank Downtown Station	Architecture/Engineering	85000127
City Hall – City of Burbank	Architecture/Engineering	96000426
North Hollywood Branch Library	Architecture/Engineering	87001018
Van Nuys Branch Library	Architecture/Engineering	71000142
Bolton Hall	Architecture/Engineering	71000159
Pico, Romulo, Abode	Architecture/Engineering	66000211
Mission San Fernando Rey de Convento Building	Architecture/Engineering	88002147
Lopez Adobe	Architecture/Engineering	71000157

Section 4.5.3: Determination of Adverse Effects

Under National Environmental Policy Act (NEPA), impacts to historic properties and other cultural resources are evaluated. Federal agencies are to take into account the nature and extent of potential effects on historic properties, and the likely nature and location of historic properties within areas that may be affected. The Proposed Action would have an effect on a historic property if it altered the characteristics qualifying that property for the National Register. Such effects are considered “adverse” if they would diminish the integrity of a property’s significant historic features (including its setting, provided the setting is a contributing factor to the property’s historic significance). For this undertaking, no land acquisition, construction, or other ground disturbance would occur. Accordingly, there would be no direct effects on historic resources.⁴³ Therefore, potential effects are limited to effects from aircraft overflights, primarily noise.

The FAA proposes to assess the indirect effects to historic resources within the proposed APE that receive noise increases that could alter historic properties where a quiet setting is a characteristic that qualify it for the National Register. Additionally, the FAA considered that certain historic sites may be potentially sensitive to effects of overflights that introduce a visual, atmospheric, or auditory element. Therefore, consistent with this understanding, the FAA is proposing an assessment of overflight within the proposed APE to capture these potential effects.

⁴³ Note: Direct effects include the removal or alteration of historic resources. Indirect effects include changes in noise, vehicular traffic, light emissions, or other changes that could interfere substantially with the use or character of the resource.

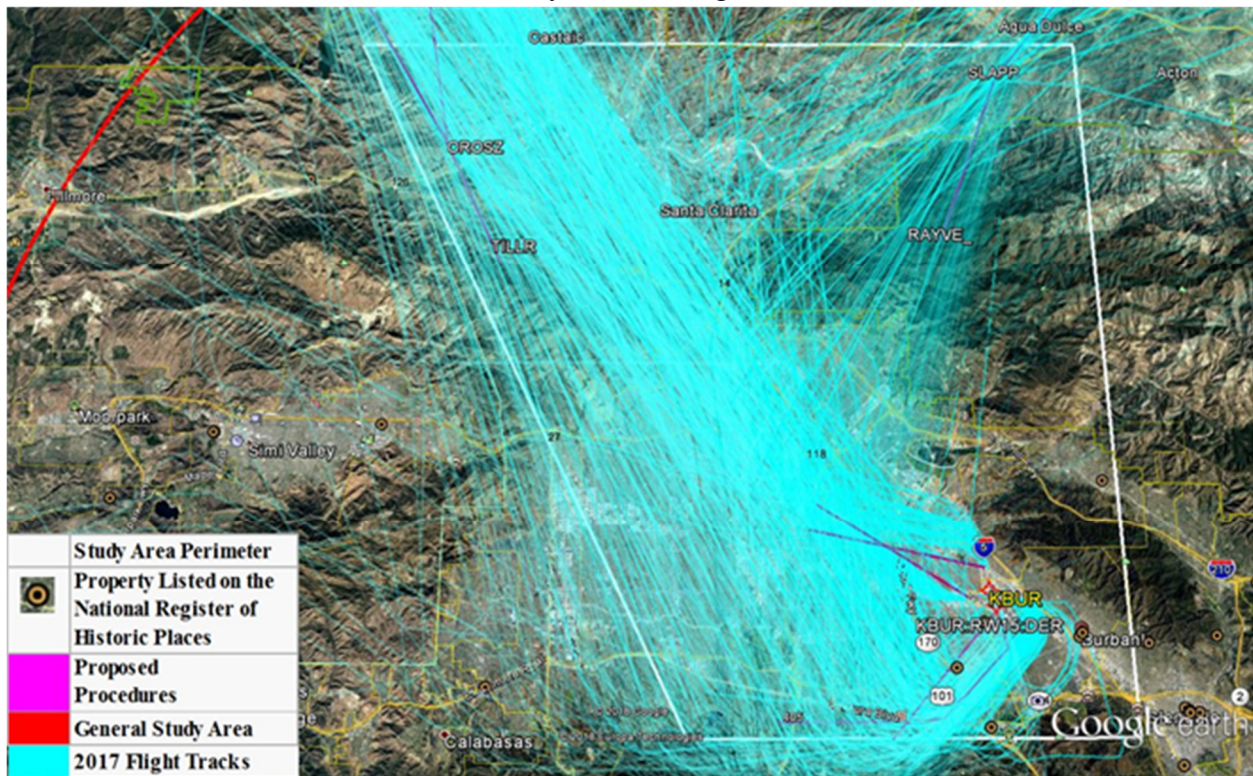
Section 4.5.3: Assessment of Effects

The FAA is proposing a finding of “no adverse effects” to historic properties for the proposed OROSZ THREE and the SLAPP TWO procedures. The FAA’s noise screening analysis indicated that the undertaking would not result in changes to noise exposure that exceed the FAA’s significant noise threshold.⁴⁴ The search of records for the National Register did not identify any historic properties within the APE for which a quiet setting is a characteristic that qualifies it for the National Register, and that therefore could be affected at a lower level of noise exposure. Implementation of the Proposed Action would involve changes to aircraft departure procedures, and would not include any project components that would touch or otherwise directly affect the ground surface. Consequently, the assessment of effects was limited to the introduction of atmospheric, audible or visual features resulting from aircraft overflights.

The FAA also considered the potential for overflights to introduce visual, atmospheric or auditory elements to historic properties. The FAA compared the proposed procedures with the 90 random days of 2017 flight tracks, as shown in Figure 13 below, and determined that there would be no new areas overflown and therefore no potential to introduce new visual, atmospheric or auditory elements that could diminish the integrity of a historic property.

⁴⁴ The FAA considers an increase of DNL 1.5 dB or more for a noise sensitive area that is exposed to noise at or above the DNL 65 dB noise exposure level, or that will be exposed at or above the DNL 65 dB level due to a DNL 1.5 dB or greater increase to be significant.

Figure 13. Depiction of Proposed Procedures in the Area of Potential Effect
With Overlay of 2017 Flight Tracks⁴⁵



Section 4.6: Environmental Justice

Environmental justice is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. *Fair treatment* means that no group of people should bear a disproportionate share of the negative environmental consequences resulting from industrial, governmental, and commercial operations or policies.

Section 4.6.1: Environmental Justice Analysis

An environmental justice analysis considers the potential of the Proposed Action to cause disproportionately high and adverse effects⁴⁶ on low-income or minority populations due to significant impacts in other environmental impact categories; or impacts on the physical environment that affect an environmental justice population in a way that FAA determines are unique to the environmental justice population and significant to that population. If these factors exist, there is not necessarily a significant impact; rather, the FAA must evaluate these factors in

⁴⁵ Figure 13 – Not to scale.

⁴⁶ “Adverse effects” means the totality of significant individual or cumulative human health or environmental effects, including interrelated social and economic effects. DOT Order 5610.2(a) provides the definition for the types of adverse impacts that should be considered when assessing impacts to environmental justice populations.

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light of context and intensity to determine if there are significant impacts. The FAA has not established a significance threshold for Environmental Justice.

This section addresses the potential for impacts on minority⁴⁷ and low-income populations of the Proposed Action as compared with No Action alternative. In weighing whether the Proposed Action raises environmental justice concerns, the analysis draws on the findings of the other impact analyses, particularly noise, land use, and air quality.

Section 4.6.2: Environmental Justice Analysis Results

Aircraft have historically overflowed the Affected Environment Study Area. Implementation of the Proposed Action would not adversely affect air quality or land use within the Affected Environment Study Area. Additionally, the results of the noise screening analysis when comparing the No Action alternative to the Proposed Action alternative indicate that changes in noise exposure level would be below the threshold of significance for implementation of the Proposed Action. The Proposed Action has no new social or economic effects on the Affected Environment Study Area. Therefore, there are no disproportionately or adverse impacts on minority, or low-income populations as a result of the Proposed Action as compared to the No Action Alternative.

Section 4.7: Visual Effects

There are no special purpose laws for light impacts and visual impacts. Impacts from light emissions are generally related to airport aviation lighting.

The FAA has not established a significance threshold for visual effects in FAA Order 1050.1F; however, the FAA has identified factors to consider when evaluating the context and intensity of potential environmental impacts for visual effects. As noted above, it was determined that there would be no new areas overflowed and that the Proposed Action would not result in an introduction of new atmospheric, visual, or auditory elements that could diminish the integrity of historic and traditional cultural resources. The FAA has concluded that the Proposed Action would not have a significant visual effect on parks, wilderness areas, tribal lands and historic properties.

⁴⁷ DOT Order 5610.2(a) defines “minority” as a person who is Black: a person having origins in any of the black racial groups of Africa; Hispanic or Latino: a person of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race; Asian American: a person having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent; American Indian and Alaskan Native: a person having origins in any of the original people of North America, South America (including Central America) and who maintains cultural identification through tribal affiliation or community recognition; or Native Hawaiian and Other Pacific Islander: people having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands. A minority population is any readily identifiable group of minority persons who live in geographic proximity, and if circumstances warrant, geographically dispersed/transient persons (such as migrant workers or Native Americans) who will be similarly affected by a proposed DOT program, policy or activity.

Section 4.8: Cumulative Impacts

The cumulative impacts analysis focuses on those resource areas that may be impacted by the Proposed Action in conjunction with the past, present, and reasonable foreseeable future actions. The likelihood that an action would cumulatively create a significant impact on the human environment is another extraordinary circumstance that the FAA must consider before categorically excluding an action from further NEPA review. In accordance with FAA Order 1050.1F, the significance of cumulative impacts should be determined in the same manner as the significance of direct and indirect impacts.⁴⁸

The FAA has discretion to determine whether, and to what extent, information about past actions are useful for the analysis of the impacts of the proposed action and alternative(s). Present impacts of past actions that are relevant and useful are those that may have a significant cause-and-effect relationship with the direct and indirect impacts of the proposed action and alternative(s). Present actions occurring in the same general time frame as the proposal may have noise or other environmental concerns that should be considered in conjunction with those that would be generated by the FAA proposed action and alternative(s) under consideration. Reasonably foreseeable future actions are actions that may affect projected impacts of a proposal and are not remote or speculative.

Section 4.8.1: Cumulative Impacts Analysis - Noise and Noise-Compatible Land Use

As discussed in Section 4.2, analysis of the predicted noise levels in conjunction with the Proposed Action indicate that changes in noise exposure levels would be below the threshold of significance relative to the No Action alternative. No projects or proposals have been identified that, when combined with the Proposed Action would result in changes in noise exposure that exceed the noise exposure threshold criteria in accordance with FAA Order 1050.1F. Therefore, the Proposed Action would not incrementally contribute to a cumulative noise impact.

Section 4.8.2: Cumulative Impacts Analysis - Air Quality

No projects or proposals have been identified that, when combined with the Proposed Action, would violate any aspect of the current SIP or threaten the attainment status of the region. In addition, no projects or proposals have been identified that, when combined with the Proposed Action, would have substantial GHG emissions, or would lead to a violation of any Federal, state, or local air quality regulation. The cumulative impact of this Proposed Action on the global climate when added to other past, present, and reasonable foreseeable future actions is currently not scientifically predictable. Aviation has been calculated to contribute approximately three percent of global carbon dioxide (CO₂) emissions; and this contribution may grow to five percent by 2050. Actions are underway within the U.S. and by other nations to reduce aviation's contribution to climate change. Such measures include new aviation related technologies to reduce emissions and

⁴⁸ FAA Order 1050.1F, Paragraph 15.3

improve fuel efficiency, renewable alternative fuels with lower a carbon footprint, more efficient air traffic management, market-based measures and environmental regulations including an aircraft CO₂ standard. At present, there are no calculations of the extent to which measures individually or cumulatively may affect aviation's CO₂ emissions. The FAA, with support from the U.S. Global Change Research Program and its participating federal agencies, (e.g., NASA, NOAA, EPA, and DOE), has developed the Aviation Climate Change Research Initiative (ACCRI) in an effort to advance scientific understanding of regional and global climate impacts of aircraft emissions, with quantified uncertainties for current and projected aviation scenarios under changing atmospheric conditions.

Section 5. Community Involvement

The National Environmental Policy Act of 1969 requires federal agencies to assess the environmental effects of their major federal actions prior to making decisions. There can be public involvement under NEPA, but this requirement is not fixed -- it can vary depending on the environmental impact of the action proposed. Additionally, NEPA requires agencies to develop their own NEPA implementing procedures. This includes establishing “categorical exclusions” for actions the agency has determined normally do not have significant environmental impact on the environment. Unless extraordinary circumstances exist, a categorically excluded action does not require an Environmental Assessment (EA) or Environmental Impact Statement (EIS) or the same public involvement as an EA or EIS. The FAA implements NEPA through FAA Order 1050.1F.

The FAA recognizes the importance and value of public input in the environmental and historic review process and uses community involvement methods that are appropriate for the types of actions it proposes.⁴⁹ In this case, the FAA action being proposed is to develop RNAV procedures that are shown to have little to no environmental impact. However, based upon comments and questions the FAA has received, there seems to be some misunderstanding about the development of the proposed procedures and their potential environmental impacts.

Therefore, even though the FAA has no statutory or legal obligation to do so, for this Proposed Action the FAA has selected a public involvement program that includes community outreach and public feedback through comments. Specifically, the FAA, with the assistance and cooperation of the City of Burbank, will hold public workshops in the greater Burbank metropolitan area to educate the public about the development and operation of the Open SID procedures. These workshops will also help the public better understand how the proposed procedures will operate near Burbank Airport. Representatives from the FAA will be available at the workshops to answer

⁴⁹ FAA Community Involvement Manual February, 2016.

questions. Materials presented at the workshops will be available online on the FAA's Community Involvement website for Burbank.⁵⁰

In addition to the public workshops, the FAA will provide the public an opportunity to comment on the information presented in the workshops, information placed on the FAA's website, and the draft version of this document. The FAA will consider the comments in developing the final procedure designs and in making a final NEPA determination.

Section 6. Preparer(s)

The FAA Air Traffic Organization, Western Service Center, Operations Support Group is responsible for all or part of the information and representations contained herein.

⁵⁰ See https://www.faa.gov/nextgen/nextgen_near_you/community_involvement/bur/.

Section 7. Facility/Service Area Conclusions

Based on this initial review and analysis, there are no extraordinary circumstances or other reasons that would preclude the responsible federal official from selecting this documented Categorical Exclusion as the appropriate level of NEPA documentation for the Proposed Action. The undersigned have determined that the Proposed Action qualifies as a documented categorically excluded action in accordance with FAA Order 1050.1F and, on this basis, recommends that further environmental review need not be conducted before the Proposed Action is implemented.

Facility Manager Review/Concurrence

Signature: _____ **Date:** _____
Name: _____
Air Traffic Manager
Southern California Terminal Radar Approach Control

Service Area Environmental Specialist Review/Concurrence

Signature: _____ **Date:** _____
Name: _____
Environmental Protection Specialist, Operations Support Group,
Western Service Center, AJV-W25

Service Area Director Review/Concurrence, if necessary

Signature: _____ **Date:** _____
Name: _____
Acting Director, Air Traffic Operations
Western Service Area, AJT-W